

TABLE 2.—Data furnished by the Canadian Meteorological Service, March 1933

Stations	Altitude above mean sea level, Jan. 1, 1919	Pressure			Temperature of the air						Precipitation		
		Station reduced to mean of 24 hours	Sea level reduced to mean of 24 hours	Depart- ure from normal	Mean max. + mean min. ÷ 2	Depart- ure from normal	Mean maxi- mum	Mean mini- mum	Highest	Lowest	Total	Depart- ure from normal	Total snowfall
	Feet	In.	In.	In.	° F.	° F.	° F.	° F.	° F.	° F.	In.	In.	In.
Cape Race, N.F.	99	29.63	29.74	-0.14	27.5	+1.3	33.7	23.8	43	13	2.71		14.5
Sydney, C.B.I.	48	29.66	29.77	-0.17	29.3	+3	34.8	23.8	42	8	5.86	+0.93	42.6
Halifax, N.S.	88	29.69	29.76	-0.19	31.2	+4	36.6	25.8	46	7	5.30	-0.16	18.3
Yarmouth, N.S.	65	29.70	29.74	-0.16	25.7	+3	31.1	20.3	42	13	5.98	+0.98	15.4
Charlottetown, P.E.I.	38									2	4.22	+1.01	31.7
Chatham, N.B.	28	29.71	29.74	-0.16	21.3	-1.7	29.3	13.3	40	-10	2.64	-0.83	24.4
Father Point, Que.	20	29.86	29.89	-0.01	20.8	+5	27.4	14.1	40	0	2.80	+0.07	28.0
Quebec, Que.	296	29.60	29.94	-0.02	22.5	+1.3	28.5	16.5	44	-3	3.99	+0.73	39.6
Doucet, Que.	1,236				12.8		27.6	-1.9	45	-36	2.76		25.2
Montreal, Que.	187	29.71	29.93	-0.07	26.0	+2.2	32.3	19.8	44	-2	3.41	-0.38	30.2
Ottawa, Ont.	236	29.68	29.96	-0.05	27.2	+5.7	34.9	19.5	48	-3	3.42	+0.70	30.8
Kingston, Ont.	285	29.64	29.96	-0.05	29.0	+3.4	34.9	23.2	45	3	3.42	+0.78	6.4
Toronto, Ont.	379	29.65	29.98	-0.04	31.6	+4.3	36.6	26.6	50	8	1.79	-0.85	5.7
Cochrane, Ont.	930				15.4		25.7	5.0	42	-16	2.24		20.3
White River, Ont.	1,244	28.69	30.06	+0.03	13.9	+1.7	28.4	-5	47	-28	1.59	+0.01	13.9
London, Ont.	808				29.6		34.8	24.5	50	1	3.53		9.7
Southampton, Ont.	656	29.24	29.97	-0.06	27.2	+2.5	33.5	20.8	54	8	2.85	+0.20	13.9
Parry Sound, Ont.	688	29.26	29.97	-0.05	25.4	+4.3	32.7	18.1	45	-9	2.91	+0.68	20.1
Port Arthur, Ont.	644	29.35	30.08	+0.03	21.7	+4.9	30.1	13.4	42	-12	1.15	+0.18	9.1
Winnipeg, Man.	760	29.25	30.12	+0.03	17.1	+4.8	27.4	6.8	48	-19	.47	-0.56	2.7
Minnedosa, Man.	1,690	28.22	30.12	+0.06	16.7	+4.2	26.3	7.1	51	-25	.14	-0.51	1.4
Le Pas, Man.	860				11.6		24.2	-1.0	52	-28	1.27		10.0
Qu'Appelle, Sask.	2,115	27.09	30.01	-0.03	22.4	+7.5	31.3	13.6	57	-22	.53	-0.24	5.1
Moose Jaw, Sask.	1,759												
Swift Current, Sask.	2,592	27.35	29.94	-0.08	29.9	+7.9	40.7	19.2	68	-15	.32	-0.49	3.2
Medicine Hat, Alb.	2,365	27.38	29.90	-0.10	31.7	+4.2	42.4	21.1	62	-10	.75	-0.01	5.9
Calgary, Alb.	3,540	26.17	29.95	.00	26.9	+7	36.9	16.9	56	-17	.20	-0.52	2.0
Banff, Alb.	4,521												
Prince Albert, Sask.	1,450	28.47	30.12	+0.02	15.7	+3.7	26.0	5.4	44	-33	.73	-0.04	7.1
Battleford, Sask.	1,592	28.24	30.05	-0.01	16.9	+3.8	27.3	6.5	50	-29	1.31	+0.85	11.7
Edmonton, Alb.	2,150												
Kamloops, B.C.	1,262												
Victoria, B.C.	230	29.73	29.99	+0.02	41.0	+2.1	48.7	39.3	55	34	1.90	-1.22	T
Barkerville, B.C.	4,190												
Estevan Point, B.C.	20												
Prince Rupert, B.C.	170												
Hamilton, Ber.	151	29.90	30.07	-0.01	62.8	+6	67.7	58.0	75	51	2.60	-2.53	.0

## LATE REPORTS FOR FEBRUARY 1933

Yarmouth, N.S.	65	29.69	29.76	-0.23	31.8	+6.0	37.9	25.6	50	10	4.85	+0.68	18.2
Kamloops, B.C.	1,262	28.72	29.98	+0.02	23.7	-4.6	29.9	17.6	55	-12	.63	-0.16	6.2
Estevan Point, B.C.	20				37.8		42.8	32.9	47	20	11.77		2.0
Prince Rupert, B.C.	170				33.9		38.2	29.7	50	19	6.96		6.3

## SEVERE LOCAL STORMS, MARCH 1933

[Compiled by Mary O. Souder]

[The table herewith contains such data as have been received concerning severe local storms that occurred during the month. A revised list of tornadoes will appear in the Annual Report of the Chief of Bureau]

Place	Date	Time	Width of path (yards)	Loss of life	Value of property destroyed	Character of storm	Remarks	Authority
Northeastern Nebraska	4-6					Heavy snow	6 to 30 inches of snow, breaking 24-hour record for March at several stations.	Official, U.S. Weather Bureau.
Shelby County, Tenn.	6	5:30 a.m.		2		Wind	7 persons injured when walls of hospital collapsed.	Do.
Chicot County, Ark.	6				\$75,000	do	Dredge boat on Mississippi River capsized and 1 man drowned; property damaged.	Do.
Canton, N.Y.	8			1		Glaze and wind	Telephone poles down.	Do.
Milwaukee, Wis.	8				1,500	Strong winds	Property damaged and lake traffic impeded.	Do.
Ludington, Mich.	9	A.m.				Gale	Ice along shore plugged intake pipe; parts of city without water.	Do.
Nampa, Idaho	12	5-5:30 p.m.	19		15,000	Wind	Damage to telephone and power lines; aerial tower of radio station demolished; path 9 miles long.	Do.
Northeastern Indiana	13	8:30 p.m.	1		100,000	Hail and tornado	Damage to property and to orchards; livestock killed; 1 person injured.	Do.
Allen and Hardin Counties, Ohio	13	9-10 p.m.			150,000	Tornadoic winds	Path strewn with wreckage of many farms, trees, telephone and telegraph poles.	Do.
Herman, Ark., and vicinity	14	5 p.m.	433		17,000	Tornado	No lives lost; 6 persons injured; property damaged.	Do.
Nashville, Tenn.	14	7:30-8:15 p.m.	200-800	15	2,200,000	Tornado and hail	Much property damage; path 40 miles long. See p. 84, Monthly Weather Review, this issue.	Do.
Knox, Gibson, Pike, and Dubois Counties, Ind.	14	P.m.			34,500	Wind and hail	Damage to property and heavy loss in peach crop.	Do.
Harrodsburg, Ky., and vicinity	14					do	No details.	Do.
Dunklin and Pemiscot Counties, Mo.	14		880		200,000	Wind	Considerable damage to property.	Do.
Montgomery and Bedford Counties, Va.	15	12:30-3:00 a.m.	1 1/2-3		2,100	do	Property damage.	Do.
Carmichael, Calif.	16	2:50 p.m.				Tornadoic winds	Rose bushes uprooted; blackberry vines torn down; property damaged.	Do.
Lodi (near), Calif.	16	3 p.m.				Tornado	Garage shifted on foundation; instrument shelter overturned.	Do.

1 Miles instead of yards.

## SEVERE LOCAL STORMS, MARCH, 1933—Continued

Place	Date	Time	Width of path (yards)	Loss of life	Value of property destroyed	Character of storm	Remarks	Authority
Delhi (near), Calif.	16	4:15 p.m.			2,000	Tornado	House and garage demolished; fruit trees uprooted.	Official U.S. Weather Bureau.
Spartanburg, S.C.	17	11:30 p.m.			6,000	Thundersquall	Dwelling demolished by wind; 2 persons injured; power lines demolished.	Do.
Benton to 11 miles south of Little Rock, Ark.	18	3:30 p.m.	200		15,000	Tornado	1 person injured; property damaged.	Do.
Burnsville, Miss.	18	5:30 p.m.	100		5,000	Tornado	No details.	Do.
Opelika, Ala., and vicinity.	18	6 p.m.	30	1	35,000	do	3 persons injured; many buildings destroyed; transmission lines torn down; path 1 mile long.	Do.
Horatio, Ark.	18				1,000	Tornadic winds	Property damaged.	Do.
Iowa, southwest, center, northeast.	18-19		150		112,000	Glaze and heavy snow.	Weight of snow caused roofs to collapse; damage to telephone and telegraph lines; traffic delayed.	Do.
Ohio, extreme northwest-ern counties.	18-19				500	Glaze	Telephone wires damaged.	Do.
Northern Illinois	18-20				8,000	Glaze and ice	Damage to power, telephone lines, trees and shrubbery.	Do.
Michigan, lower peninsula.	18-20					Rain, sleet, and ice.	Much damage to telegraph and telephone lines and to trees, motor traffic very hazardous.	Do.
Omaha, Nebr.	18-20				2,000	Rain, sleet, and snow.	Damage to greenhouses; traffic delayed.	Do.
Milwaukee, Wis.	18-20					Sleet, wind, and snow.	½ inch of glaze formation on trees, poles and wires; roads and pavements slippery; property damaged.	Do.
Port Washington to Grant County, Wis.	18-20				100,000	Sleet, glaze, and wind.	Wires broken and 400 poles blown down; small damage to trees.	Do.
Grand Rapids, Mich.	19	10:20 a.m.-12:47 p.m.				Glaze.	½ inch of ice on surfaces; motoring hazardous.	Do.
Alice to Yoakum, Tex.	19	A.m.				Wind.	Houses blown from foundations; crops damaged.	Do.
Jim Wells to Lavaca Counties, Tex.	19	A.m.				do	Windows blown in; several houses blown from their foundations.	Do.
Madison, Wis. (7 miles east of).	19	3 p.m.		1		Tornadic winds	House wrecked.	Do.
Davenport, Iowa	19-20					Glaze and high wind.	Considerable trouble with overhead wires; much difficulty in walking and driving.	Do.
Northern lower Michigan.	19-20					Ice storm.	No damage reported.	Do.
Grand Rapids, Mich., and vicinity.	20	8:15 - 11 a.m.				do	Damage to wires.	Do.
Ludington, Mich.	20	A.m.				Sleet and glaze	Little ice on overhead wires; highways icy at places.	Do.
Sea Bright, N.J.	20	A.m.			35,000	Wind.	Residence washed out to sea.	Do.
Jeffersonville, N.Y., and vicinity.	20				30,000	Glaze	Damage to telephone and power lines.	Do.
Hazelhurst, Pa., and vicinity.	20					Ice storm	Ice 2 inches thick froze on trees, wires and all surfaces; many poles and wires down.	Do.
Springfield, Ill.	26-27					Heavy snow.	Snow stuck to trees and bushes.	Do.
Nantucket, Mass.	26-27					Snow and sleet.	Snow frozen on wires did several thousand dollars damage.	Do.
Bridgeport, Okla.	26-27		14			Hail.	Considerable property damage; loss not estimated.	Do.
Denver, Colo.	29	P.m.			2,500	Whirlwind.	Property damaged.	Do.
Hugo, Okla.	30	4:30 a.m.	14		60,000	Heavy hail.	Property damaged; path 10 miles long.	Do.
Mabank (near), Tex.	30	2:30 p.m.			2,000	Tornado	No other details.	Do.
Apache, Okla.	30	3 p.m.				do	Storm confined to pasture lands with no damage or fatalities.	Do.
Fordice to Pennington, Tex.	30	3 p.m.			10,000	do	13 persons injured; property damaged.	Do.
Lindale, Tex.	30	3 p.m.		2	75,000	do	Property damaged; 10 persons injured.	Do.
Shelbyville, Tex.	30	3 p.m.		2	75,000	do	29 persons injured; property damaged.	Do.
San Augustine, Tex.	30	3-3:30 p.m.		6	75,000	Tornadoes (2)	26 persons injured; property damaged.	Do.
Henderson, Tex.	30	4-5 p.m.	440		4,000	Wind.	Houses blown from foundations; corn had to be replanted.	Do.
Overbrook, Kans. (3 miles southeast of).	30	4:20 p.m.	75		1,000	Tornado	Property damage; path 1 mile long.	Do.
Osage and Douglas Counties, Kans.	30	4:30 p.m.	250		2,000	do	Property damaged; path not continuous.	Do.
Harmon and Hall Summit, La., and vicinity.	30	4:50-4:55 p.m.	11	5	62,000	do	Damage to property, trees and fences; many injured; path 20 miles long.	Do.
Mt. Holly, Ark. (5 miles south of).	30	5 p.m.	433	1	2,000	do	Damage to property; 4 persons injured.	Do.
Oakland, Kans.	30	6 p.m.				Tornadic winds	No details.	Do.
Huntington, Etowah, and San Augustine, Tex.	30	6:15-6:30 p.m.	400-1,700	4	125,000	Tornado	More than 30 injured; property damaged.	Do.
Baird, Miss.	30	10 p.m.			5,000	High winds.	Property damaged.	Do.
Eudora, Ark.	30-31	P.m.	866		8,000	Tornado	Damage to property; path 5 miles long.	Do.
Dubuque, Iowa	30-31					Electrical and heavy rain.	Trees and poles struck by lightning; basements flooded and sewers overflowed; damage to gardens.	Do.
Mississippi (13 counties)	30-31		33,800	54	235,000	Tornadoes	See Monthly Weather Review, p. 84, March 1933.	Do.
La Crosse, Wis., and vicinity.	30-31			3	64,000	Heavy rain and flood.	Property damaged; 3 drowned attempting to drive automobiles over submerged roads.	Do.
Warren County, Miss.	31	8:15 a.m.			900	Wind.	No details.	Do.
Marks, Miss.	31	8:20 a.m.			10,000	do	do.	Do.
Plymouth, Springfield, and Algoma, Miss.	31	9:00 a.m.			14,500	do	do.	Do.
Zachary to Darlington, La.	31	9:55-11 a.m.	66	3	55,000	Tornado	15 persons injured and property damaged; path 40 miles long.	Do.
West Point, Miss.	31	10 a.m.		5	7,500	Wind.	No details.	Do.
Sherman, Miss.	31	10:30 a.m.		2	1,000	do	do.	Do.
Lacombe to Pearl River section, La.	31	12 a.m.	70		17,000	Tornado	Damage mostly to buildings; path 20 miles long.	Do.
Fletcher, Okla.	31	5 p.m.	440		6,000	do	Property damaged.	Do.
Brewton, Ala. (7 miles northwest of).	31	5:15 p.m.	75		125,000	do	Turpentine camp demolished; 40 persons injured; 13 houses destroyed; path 6 miles long.	Do.
Perdido Bay to mouth of Escambia River, Fla.	31	7:30 p.m.	150		1,000	Tornadic winds	Church destroyed; dwelling partially destroyed, barn blown in; trees uprooted; 8 persons injured.	Do.
Choctawhatchee National Forest, Fla.	31	9:30 p.m.	880-2040		1,100	Tornado	Only 1 farm in path and no one injured; path zigzag and about 35 miles long.	Do.
Southern Baldwin County, Ala.	18	p.m.	300		10,000	do	Property damaged; path about 6 miles long.	Do.
Knoxville, Tenn.	31				500	Wind	Barn loft caved in; airport hangar razed.	Do.

1 Miles instead of yards.

